

PATENT APPLICATION
Attorney Docket No. 040049

Amendments to the Figures

Kindly replace Figure 24 with the Replacement Sheet enclosed. This Replacement Sheet amends Figure 24 to include isoleucine as the final amino acid in the sequence. This amendment is supported by SEQ ID NO: 19 as filed, as well as by the original caption of Figure 24, which states, "Truncated ORF2 amino acid sequence (SEQ ID NO: 19)." Entry of the amendment is respectfully requested.

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Remarks

I. Status

Following entry of the amendments included herein, claims 19, 20, 22, 23, and 24 are pending, with claims 1-18, 21, and 25-32 cancelled and claims 23 and 24 amended herein.

Support for the amendment to claim 24 is found in the paragraph on page 31, lines 17-25 of the application as filed. The amendment to claim 23 is for reasons of grammar and would be recognized as appropriate by one skilled in the art.

Applicants note that the examiner's assessment of the claims as set forth in the "Application Status" portion of the Office Action is correct. Claim 24 remains pending, and the stated support for amended claim 20 is actually support for amended claim 19.

II. Priority

The Office Action suggests that the priority claim in this case be amended to reflect issuance of priority application no. 09/722,441 as U.S. Patent 6,927,046. That amendment is included herein.

III. Objections

The Office Action objects to claim 19 for an improper status designation. Claim 19 is properly designated in this response.

Claim 23 stands objected to for use of "The host cell" rather than "A host cell." That objection has been resolved by amendment of claim 23.

The Office Action objects to the specification for alleged lack of clarity due to the translation of AT from SEQ ID NO: 18 into II3122 and to the description of replaced Figure 24. Applicants submit that this objection has been resolved by amendment of Figure 24 to directly

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correspond with SEQ ID NO: 19, as well as by amendment of the description of Figure 24 in the specification to match the description appearing in the top caption of the figure as filed.

The objection to the Abstract has been maintained because the Abstract allegedly "continues to disclose no information regarding to the encoded protein (hypothetical protein) by the gene ORF2." The status of the ORF2 protein as a hypothetical protein is now reflected in the Abstract. Withdrawal of the objection is requested.

IV. Claim Rejections - 35 U.S.C. § 112

Claims 19-22 and 24 stand rejected under 35 U.S.C. § 112, first paragraph, for alleged inclusion of new matter. Applicants respectfully disagree. Support for the amendment to claim 19 (and the dependent claims) may be found, for example, in the paragraph on page 31, lines 17-25. This paragraph discusses chromosomal integration of a polynucleotide molecule comprising a nucleotide sequence encoding a polypeptide comprising the amino acid sequence of SEQ ID NO: 19. Applicants submit that this is sufficient support for the amended claims. Withdrawal of the rejection is requested.

Claim 24 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly not enabled by the specification. Applicants submit that claim 24 as amended herein is enabled by the specification.

V. Claim Rejections - 35 U.S.C. § 103

Claims 19-20, 22, and 24 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Pisabarro, *et al.*, in view of Labarre, *et al.* and Hirano, *et al.* The Office Action cites Pisabarro, *et al.*, for the proposition that "it is likely that ORF2 is also translated in *Corynebacteria* in lysine biosynthesis. Labarre, *et al.* is cited for a "reliable and general method" for inserting genes into a chromosome of *Corynebacterium*. Hirano, *et al.* is cited for noting that

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"L-lysine productivity" can be "obtained by the means of amplification of genes for the L-lysine biosynthesis."

Applicants respectfully disagree with the conclusion reached in the Office Action for at least two reasons. First, the mere listing of ORF2 in Pisabarro, combined with the blanket statement that it is "likely" that the open reading frame is "also translated" is not a suggestion that the translation is involved in L-lysine production, or that increasing translation of the open reading frame would increase L-lysine production. Instead, from having read Pisabarro it would seem just as likely that the ORF2 were transcribed as some kind of inhibitor.

Applicants contend that there is no motivation to combine Pisabarro with any of the other cited references, at least because Pisabarro gives no expectation of success. At most, the conclusion reached in the Office Action is that combining Pisabarro with Labarre and Hirano would be "obvious to try." That is not sufficient basis for an obviousness rejection under 35 U.S.C. § 103(b). *See In re O'Farrell*, 853 F.2d 894, 903, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988).

Applicants point out that the rejection is an improper "obvious to try" rejection as well due to the nature of SEQ ID NO: 19. The amino acid sequence of SEQ ID NO: 19 is a truncation of the full amino acid that would be predicted from the nucleotide sequence of ORF2. There is no guidance whatever in Pisabarro or the other cited art to direct a person to select the start and end points claimed in the invention. Finding the claimed truncation would involve experimentation involving all possible combinations. Pisabarro offers "no indication of which parameters were critical or no direction as to which of many possible choices is likely to be successful." *Id.*

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For the reasons given above, applicants request that the rejection be removed, and that the claims be reconsidered and allowed.

CONCLUSION

Applicants believe that a full and complete response to the outstanding office action has been made herein. In the event that further discussion might resolve any outstanding issues with the claims, the Examiner is invited to telephone the undersigned at the number provided below. Consideration and early allowance of all of the pending claims is respectfully requested.

Respectfully submitted,



Dated: February 28, 2007

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